AMENDMENTS TO THE SPECIFICATION:

Please amend page 7, line 11 as follows:

-- sensor 50 is moved essentially linearly along the screw ~~21~~ 25 by control of the actuator 24 --

Please amend the specification as follows, beginning on page 9 line 20:

--In figure 4 there is presented one practical sensor module solution to form a TDI sensor suitable for use in scanning imaging. The sensor 50 can consist of e.g. four in the scanning direction consecutive sensor module columns 51, 52, 53, 54, in which columns separate sensor modules ~~510, 510',...~~ 510-540, 510' are placed at right angles to the scanning movement 33 in slightly different positions such that the possible seams of the sensor surfaces of the modules 510-540, 510' ~~510, 510',...~~ will become placed at slightly various heights in each column. This secures that the possible gaps between the modules 510-540, 510' ~~510, 510',...~~ will be imaged anyhow via the three other module columns and no gaps will be left in the image formed. The overlap may be implemented by e.g. as a multiple of the pixel size of the sensor module added with a quotient, which depends on the number of modules involved in the image formation and the pixel size according to a calculation formula dpix x (n+1/m), where dpix = diameter of the pixel, n = integer and m = number of the modules in the observation direction or an integer smaller than that, whereby the imaging resolution of the sensor module may be increased to be higher than that of the physical pixel size with the help of signal processing functions.

The corresponding overlaps and distances between the modules 510-540, 510' ~~510, 510',...~~ may also be implemented between those sensor modules consecutive in the scanning direction, whereupon also the resolution in the direction of the scanning movement may be increased correspondingly. On the other hand, separate sensor modules 510-540, 510' ~~510, 510',...~~ may be clocked in a way self-evident to a person skilled in the art to achieve a corresponding effect that increases resolution also in the direction of the scanning movement.

In mammography applicatons a single module 510-540, 510', 510, 510'', ... may be formed of e.g. 142 x 284 pixels of 35 mm and may form a sensor surface of an area of 5 mm x 10 mm, when the sensor arrangement as a whole may contain e.g. in the width direction four and in the height direction about 20 such modules, thereby forming a sensor 50 of ca. 20 mm by width and e.g. ca. 240 mm by heidth.

It is recommended to keep the gaps between the sensor modules 510-540, 510', 510, 510'', ... as small as possible not only in view of the physical dimensions of the sensor arrangement 15 as a whole but also in order to keep the imaging time needed for implementing the scanning movement as short as possible, so that unneccessary problems would not be created due to a possible uneven production of radiation in the radiation source or as a consequence of the object to be imaged moving during the imaging scan. In view of forming a seamless image the distance between the modules 510-540, 510', 510, 510'', ... is not critical. For example, a shift register may be arranged on the other of the vertical edges of each sensor module 510-540, 510', 510, 510'', ... without the space occupied by it essentially troubling the imaging.

In figure 5 it has been clarified how in the module column formed of two or more sensor modules 510-540, 510', 510, 510'', ... each of the modules may be placed essentially at right angles to the focus 42 of the beam used in the imaging also in the direction perpendicular to the scanning direction. --